

VOLOS ENGENHARIA		PROJETO EXECUTIVO DE TERRAPLENAGEM					REVISÃO: 4
		AV. SEBASTIÃO DE PÁDUA					PÁG. 1 de 10
		PLANILHA DE CÁLCULO DE VOLUME					MAR/2025
ESTACA	ÁREAS GEOMÉTRICAS (m²)		SEMI-DISTÂNCIA	VOLUMES PARCIAIS (m³)		VOLUMES ACUMULADOS (m³)	
	CORTE	ATERRO		CORTE	ATERRO	CORTE	ATERRO
0+0,000	0,000	0,000		0,000	0,000	0,000	0,000
1+0,000	0,039	1,865	10,000	0,385	18,651	0,385	18,651
1+1,927	0,042	1,857	0,964	0,078	3,588	0,463	22,239
2+0,000	0,467	0,189	9,036	4,596	18,491	5,059	40,731
2+3,855	0,573	0,139	1,928	2,003	0,633	7,062	41,363
3+0,000	1,238	0,010	8,072	14,619	1,203	21,681	42,566
4+0,000	1,679	0,000	10,000	29,173	0,102	50,855	42,668
4+9,443	1,717	0,000	4,722	16,033	0,000	66,888	42,668
5+0,000	1,629	0,000	5,278	17,657	0,000	84,545	42,668
6+0,000	1,683	0,000	10,000	33,118	0,000	117,663	42,668
7+0,000	1,760	0,000	10,000	34,429	0,000	152,092	42,668
7+2,779	1,753	0,000	1,390	4,882	0,000	156,974	42,668
8+0,000	1,669	0,000	8,610	29,456	0,000	186,430	42,668
9+0,000	1,603	0,000	10,000	32,713	0,000	219,142	42,668
9+16,116	1,331	0,000	8,058	23,638	0,000	242,781	42,668
10+0,000	1,546	0,000	1,942	5,587	0,000	248,368	42,668
11+0,000	1,246	0,005	10,000	27,923	0,046	276,291	42,714
12+0,000	1,705	0,000	10,000	29,510	0,046	305,801	42,761
13+0,000	1,885	0,000	10,000	35,901	0,000	341,702	42,761
14+0,000	1,673	0,000	10,000	35,577	0,000	377,280	42,761
15+0,000	1,676	0,000	10,000	33,490	0,000	410,770	42,761
16+0,000	1,653	0,000	10,000	33,293	0,000	444,063	42,761
17+0,000	1,217	0,000	10,000	28,695	0,000	472,758	42,761
17+6,497	0,942	0,000	3,249	7,012	0,000	479,770	42,761
18+0,000	0,352	0,002	6,751	8,735	0,016	488,505	42,777
18+15,644	0,618	0,056	7,822	7,588	0,460	496,093	43,237
19+0,000	0,770	0,089	2,178	3,023	0,317	499,116	43,554
20+0,000	0,628	0,149	10,000	13,973	2,385	513,089	45,939
20+4,791	0,649	0,121	2,396	3,058	0,647	516,147	46,587
20+17,371	0,718	0,194	6,290	8,599	1,979	524,746	48,565
21+0,000	0,735	0,195	1,314	1,910	0,510	526,656	49,076
22+0,000	0,896	0,097	10,000	16,310	2,916	542,967	51,991
23+0,000	0,955	0,107	10,000	18,506	2,034	561,473	54,026
24+0,000	0,894	0,000	10,000	18,492	1,065	579,965	55,091
25+0,000	0,627	0,000	10,000	15,218	0,000	595,183	55,091
25+1,682	0,609	0,004	0,841	1,040	0,003	596,223	55,095
26+0,000	0,529	0,001	9,159	10,422	0,047	606,645	55,142
27+0,000	0,612	0,000	10,000	11,414	0,013	618,059	55,155

VOLOS ENGENHARIA		PROJETO EXECUTIVO DE TERRAPLENAGEM					REVISÃO: 4
		AV. SEBASTIÃO DE PÁDUA					PÁG. 2 de 10
		PLANILHA DE CÁLCULO DE VOLUME					MAR/2025
ESTACA	ÁREAS GEOMÉTRICAS (m²)		SEMI-DISTÂNCIA	VOLUMES PARCIAIS (m³)		VOLUMES ACUMULADOS (m³)	
	CORTE	ATERRO		CORTE	ATERRO	CORTE	ATERRO
28+0,000	0,413	0,000	10,000	10,252	0,000	628,312	55,155
29+0,000	0,790	0,000	10,000	12,034	0,000	640,346	55,155
29+5,993	0,780	0,000	2,997	4,705	0,000	645,050	55,155
30+0,000	0,779	0,000	7,003	10,917	0,000	655,967	55,155
31+0,000	0,491	0,179	10,000	12,708	1,790	668,675	56,945
32+0,000	0,617	0,000	10,000	11,088	1,790	679,763	58,736
33+0,000	0,542	0,003	10,000	11,590	0,025	691,353	58,761
34+0,000	0,166	0,001	10,000	7,072	0,031	698,425	58,792
35+0,000	0,210	0,003	10,000	3,753	0,040	702,178	58,832
36+0,000	0,318	0,006	10,000	5,281	0,095	707,459	58,926
37+0,000	0,381	0,043	10,000	6,999	0,494	714,458	59,420
38+0,000	0,340	0,006	10,000	7,212	0,495	721,670	59,916
39+0,000	0,349	0,028	10,000	6,891	0,345	728,562	60,261
40+0,000	0,444	0,066	10,000	7,933	0,946	736,494	61,207
41+0,000	0,405	0,047	10,000	8,486	1,128	744,980	62,334
42+0,000	0,260	0,000	10,000	6,651	0,469	751,631	62,804
43+0,000	0,770	0,000	10,000	10,307	0,004	761,938	62,808
44+0,000	1,038	0,000	10,000	18,085	0,000	780,023	62,808
45+0,000	1,165	0,000	10,000	22,034	0,000	802,057	62,808
46+0,000	1,024	0,000	10,000	21,896	0,000	823,953	62,808
47+0,000	0,547	0,000	10,000	15,713	0,000	839,666	62,808
48+0,000	0,204	0,111	10,000	7,511	1,110	847,177	63,918
49+0,000	0,129	0,448	10,000	3,327	5,592	850,504	69,510
50+0,000	0,101	0,449	10,000	2,302	8,971	852,806	78,481
51+0,000	0,063	0,288	10,000	1,645	7,371	854,451	85,853
51+14,850	0,211	0,257	7,425	2,033	4,050	856,484	89,903
52+0,000	0,297	0,216	2,575	1,308	1,217	857,792	91,120
53+0,000	0,338	0,133	10,000	6,350	3,487	864,142	94,606
54+0,000	0,404	0,184	10,000	7,415	3,172	871,557	97,779
55+0,000	0,647	0,094	10,000	10,508	2,783	882,066	100,562
56+0,000	0,451	0,291	10,000	10,982	3,855	893,048	104,417
57+0,000	0,346	0,309	10,000	7,971	6,006	901,018	110,423
57+15,307	0,267	0,520	7,654	4,694	6,350	905,712	116,773
58+0,000	0,249	0,595	2,346	1,211	2,616	906,923	119,389
59+0,000	0,247	0,777	10,000	4,962	13,713	911,885	133,102
60+0,000	0,205	1,055	10,000	4,524	18,322	916,409	151,424
61+0,000	0,156	1,268	10,000	3,614	23,233	920,023	174,657
62+0,000	0,241	1,035	10,000	3,976	23,034	923,999	197,692

VOLOS ENGENHARIA		PROJETO EXECUTIVO DE TERRAPLENAGEM					REVISÃO: 4
		AV. SEBASTIÃO DE PÁDUA					PÁG. 3 de 10
		PLANILHA DE CÁLCULO DE VOLUME					MAR/2025
ESTACA	ÁREAS GEOMÉTRICAS (m²)		SEMI-DISTÂNCIA	VOLUMES PARCIAIS (m³)		VOLUMES ACUMULADOS (m³)	
	CORTE	ATERRO		CORTE	ATERRO	CORTE	ATERRO
63+0,000	0,244	1,322	10,000	4,849	23,571	928,849	221,262
63+15,764	0,299	1,161	7,882	4,275	19,567	933,123	240,830
63+17,481	0,310	1,124	0,858	0,523	1,961	933,646	242,791
64+0,000	0,329	1,063	1,259	0,805	2,754	934,451	245,546
65+0,000	0,401	0,980	10,000	7,305	20,432	941,756	265,978
65+14,567	0,272	1,197	7,284	4,907	15,857	946,663	281,835
66+0,000	0,213	1,181	2,716	1,319	6,460	947,982	288,295
67+0,000	0,212	1,307	10,000	4,249	24,885	952,231	313,180
67+11,653	0,139	1,339	5,827	2,046	15,418	954,277	328,598
68+0,000	0,143	1,242	4,173	1,179	10,771	955,456	339,369
69+0,000	0,078	1,106	10,000	2,214	23,483	957,670	362,852
70+0,000	0,028	0,941	10,000	1,067	20,468	958,737	383,320
71+0,000	0,047	0,794	10,000	0,753	17,351	959,490	400,671
72+0,000	0,166	0,480	10,000	2,134	12,741	961,623	413,411
73+0,000	0,216	0,149	10,000	3,827	6,287	965,450	419,698
74+0,000	0,129	0,186	10,000	3,453	3,351	968,903	423,049
75+0,000	0,265	0,118	10,000	3,940	3,045	972,843	426,094
75+8,474	0,163	0,121	4,237	1,814	1,015	974,657	427,109
76+0,000	0,162	0,097	5,763	1,874	1,256	976,531	428,366
76+16,368	0,126	0,067	8,184	2,356	1,344	978,887	429,710
77+0,000	0,168	0,063	1,816	0,534	0,237	979,421	429,947
78+0,000	0,363	0,023	10,000	5,305	0,855	984,726	430,801
78+4,261	0,395	0,021	2,131	1,615	0,092	986,341	430,894
79+0,000	0,285	0,046	7,869	5,349	0,522	991,690	431,416
80+0,000	0,302	0,035	10,000	5,863	0,812	997,553	432,227
81+0,000	0,118	0,156	10,000	4,200	1,917	1.001,753	434,144
82+0,000	0,036	0,309	10,000	1,540	4,649	1.003,293	438,793
83+0,000	0,043	0,702	10,000	0,785	10,111	1.004,078	448,904
83+1,106	0,062	0,675	0,553	0,058	0,762	1.004,136	449,666
83+8,502	1,024	0,684	3,698	4,015	5,026	1.008,151	454,692
83+15,899	0,667	0,465	3,698	6,255	4,247	1.014,406	458,939
84+0,000	0,855	0,440	2,050	3,121	1,855	1.017,527	460,795
85+0,000	0,068	0,136	10,000	9,224	5,763	1.026,750	466,558
86+0,000	0,035	0,590	10,000	1,025	7,263	1.027,776	473,821
87+0,000	0,000	0,698	10,000	0,348	12,883	1.028,124	486,704
88+0,000	0,525	0,031	10,000	5,254	7,297	1.033,378	494,002
88+1,341	0,558	0,027	0,671	0,727	0,039	1.034,105	494,041
89+0,000	0,869	0,008	9,329	13,315	0,329	1.047,419	494,370

VOLOS ENGENHARIA		PROJETO EXECUTIVO DE TERRAPLENAGEM				REVISÃO: 4	
		AV. SEBASTIÃO DE PÁDUA				PÁG. 4 de 10	
		PLANILHA DE CÁLCULO DE VOLUME				MAR/2025	
ESTACA	ÁREAS GEOMÉTRICAS (m²)		SEMI-DISTÂNCIA	VOLUMES PARCIAIS (m³)		VOLUMES ACUMULADOS (m³)	
	CORTE	ATERRO		CORTE	ATERRO	CORTE	ATERRO
90+0,000	1,141	0,021	10,000	20,098	0,293	1.067,517	494,663
90+10,725	1,060	0,136	5,363	11,800	0,842	1.079,317	495,505
91+0,000	1,135	0,180	4,637	10,179	1,466	1.089,496	496,971
92+0,000	1,186	0,215	10,000	23,211	3,949	1.112,708	500,920
93+0,000	0,905	0,034	10,000	20,913	2,488	1.133,620	503,408
93+0,109	0,904	0,034	0,055	0,099	0,004	1.133,720	503,411
94+0,000	0,743	0,071	9,945	16,377	1,048	1.150,097	504,460
95+0,000	0,724	0,118	10,000	14,668	1,895	1.164,765	506,355
96+0,000	0,486	0,087	10,000	12,100	2,050	1.176,865	508,405
97+0,000	0,613	0,032	10,000	10,990	1,193	1.187,854	509,597
98+0,000	0,777	0,029	10,000	13,902	0,616	1.201,757	510,213
99+0,000	0,672	0,015	10,000	14,487	0,443	1.216,243	510,656
100+0,000	0,965	0,000	10,000	16,367	0,151	1.232,610	510,806
101+0,000	1,048	0,000	10,000	20,131	0,000	1.252,741	510,806
102+0,000	1,415	0,000	10,000	24,631	0,000	1.277,372	510,806
103+0,000	1,428	0,073	10,000	28,431	0,733	1.305,803	511,539
104+0,000	0,672	0,289	10,000	20,998	3,619	1.326,800	515,159
105+0,000	0,401	0,843	10,000	10,728	11,313	1.337,529	526,471
106+0,000	0,834	1,309	10,000	12,354	21,516	1.349,883	547,987
107+0,000	1,028	1,780	10,000	18,624	30,885	1.368,507	578,872
108+0,000	0,534	1,958	10,000	15,622	37,380	1.384,129	616,252
109+0,000	0,970	1,859	10,000	15,044	38,177	1.399,173	654,429
110+0,000	1,083	1,898	10,000	20,528	37,574	1.419,701	692,003
111+0,000	0,478	1,991	10,000	15,609	38,888	1.435,310	730,891
112+0,000	1,061	0,159	10,000	15,398	21,498	1.450,708	752,389
112+18,758	0,677	0,678	9,379	16,302	7,850	1.467,010	760,239
113+0,000	0,664	0,776	0,621	0,832	0,902	1.467,843	761,141
114+0,000	1,054	0,973	10,000	17,186	17,484	1.485,029	778,625
115+0,000	1,740	0,577	10,000	27,943	15,498	1.512,972	794,123
116+0,000	1,667	0,590	10,000	34,069	11,667	1.547,041	805,790
117+0,000	2,189	0,368	10,000	38,557	9,571	1.585,598	815,361
118+0,000	2,636	0,216	10,000	48,255	5,834	1.633,853	821,196
119+0,000	3,573	0,076	10,000	62,091	2,914	1.695,944	824,110
120+0,000	3,531	0,062	10,000	71,032	1,377	1.766,976	825,487
121+0,000	2,686	0,094	10,000	62,167	1,560	1.829,143	827,047
122+0,000	1,945	0,194	10,000	46,313	2,882	1.875,455	829,930
122+4,723	1,776	0,239	2,362	8,788	1,023	1.884,243	830,953
123+0,000	1,462	0,133	7,638	24,729	2,839	1.908,973	833,792

VOLOS ENGENHARIA		PROJETO EXECUTIVO DE TERRAPLENAGEM				REVISÃO: 4	
		AV. SEBASTIÃO DE PÁDUA				PÁG. 5 de 10	
		PLANILHA DE CÁLCULO DE VOLUME				MAR/2025	
ESTACA	ÁREAS GEOMÉTRICAS (m²)		SEMI-DISTÂNCIA	VOLUMES PARCIAIS (m³)		VOLUMES ACUMULADOS (m³)	
	CORTE	ATERRO		CORTE	ATERRO	CORTE	ATERRO
124+0,000	1,540	0,059	10,000	30,015	1,914	1.938,987	835,706
125+0,000	1,814	0,011	10,000	33,535	0,696	1.972,522	836,402
126+0,000	2,956	0,000	10,000	47,698	0,111	2.020,220	836,512
127+0,000	2,829	0,000	10,000	57,848	0,000	2.078,068	836,512
128+0,000	2,898	0,000	10,000	57,265	0,000	2.135,333	836,512
129+0,000	3,021	0,000	10,000	59,193	0,000	2.194,526	836,512
130+0,000	3,049	0,000	10,000	60,706	0,000	2.255,233	836,512
131+0,000	2,917	0,000	10,000	59,667	0,000	2.314,900	836,512
131+10,687	3,265	0,024	5,344	33,041	0,129	2.347,940	836,641
132+0,000	3,898	0,070	4,656	33,353	0,438	2.381,293	837,079
133+0,000	1,777	0,002	10,000	56,750	0,717	2.438,043	837,796
134+0,000	1,395	0,042	10,000	31,717	0,442	2.469,760	838,238
135+0,000	1,251	0,123	10,000	26,459	1,648	2.496,219	839,886
135+15,062	1,262	0,070	7,531	18,927	1,450	2.515,146	841,336
136+0,000	1,295	0,039	2,469	6,312	0,268	2.521,458	841,604
137+0,000	1,216	0,000	10,000	25,109	0,385	2.546,566	841,989
138+0,000	1,103	0,000	10,000	23,191	0,000	2.569,757	841,989
139+0,000	1,598	0,000	10,000	27,012	0,000	2.596,769	841,989
139+4,036	1,352	0,000	2,018	5,955	0,000	2.602,724	841,989
140+0,000	1,087	0,000	7,982	19,468	0,000	2.622,192	841,989
141+0,000	0,855	0,000	10,000	19,418	0,000	2.641,610	841,989
142+0,000	2,040	0,000	10,000	28,944	0,000	2.670,553	841,989
142+13,011	2,721	0,000	6,506	30,970	0,000	2.701,524	841,989
143+0,000	3,442	0,000	3,494	21,534	0,000	2.723,057	841,989
144+0,000	2,686	0,000	10,000	61,280	0,000	2.784,337	841,989
144+16,618	2,258	0,190	8,309	41,086	1,578	2.825,423	843,567
145+0,000	2,006	0,200	1,691	7,210	0,659	2.832,633	844,226
146+0,000	2,313	0,051	10,000	43,188	2,508	2.875,821	846,734
147+0,000	1,526	0,084	10,000	38,393	1,355	2.914,214	848,089
148+0,000	1,447	0,043	10,000	29,726	1,278	2.943,940	849,367
149+0,000	1,206	0,083	10,000	26,528	1,264	2.970,468	850,632
150+0,000	0,899	0,099	10,000	21,049	1,818	2.991,518	852,450
150+18,671	0,506	0,220	9,336	13,116	2,974	3.004,634	855,423
151+0,000	0,477	0,231	0,664	0,653	0,299	3.005,286	855,723
151+12,480	0,724	0,118	6,240	7,491	2,180	3.012,778	857,903
152+0,000	1,090	0,093	3,760	6,819	0,794	3.019,597	858,696
152+6,289	1,181	0,081	3,145	7,141	0,547	3.026,738	859,243
153+0,000	1,972	0,089	6,855	21,614	1,168	3.048,352	860,411

VOLOS ENGENHARIA		PROJETO EXECUTIVO DE TERRAPLENAGEM				REVISÃO: 4	
		AV. SEBASTIÃO DE PÁDUA				PÁG. 6 de 10	
		PLANILHA DE CÁLCULO DE VOLUME				MAR/2025	
ESTACA	ÁREAS GEOMÉTRICAS (m²)		SEMI-DISTÂNCIA	VOLUMES PARCIAIS (m³)		VOLUMES ACUMULADOS (m³)	
	CORTE	ATERRO		CORTE	ATERRO	CORTE	ATERRO
154+0,000	2,085	0,059	10,000	40,573	1,484	3.088,925	861,894
155+0,000	1,205	0,166	10,000	32,896	2,248	3.121,821	864,143
155+13,847	1,664	0,160	6,924	19,866	2,257	3.141,686	866,400
156+0,000	1,753	0,179	3,076	10,513	1,045	3.152,199	867,445
157+0,000	2,033	0,239	10,000	37,864	4,185	3.190,063	871,630
158+0,000	2,235	0,379	10,000	42,680	6,186	3.232,743	877,817
159+0,000	1,761	0,478	10,000	39,959	8,573	3.272,703	886,390
159+17,828	1,506	0,407	8,914	29,119	7,887	3.301,821	894,277
160+0,000	1,400	0,435	1,086	3,155	0,914	3.304,976	895,190
161+0,000	0,861	0,511	10,000	22,606	9,458	3.327,582	904,649
162+0,000	0,889	0,626	10,000	17,496	11,374	3.345,078	916,022
163+0,000	0,031	0,793	10,000	9,198	14,195	3.354,276	930,217
164+0,000	0,153	1,252	10,000	1,842	20,453	3.356,118	950,670
164+1,808	0,219	1,283	0,904	0,337	2,292	3.356,455	952,962
165+0,000	0,187	1,341	9,096	3,694	23,865	3.360,149	976,828
166+0,000	0,332	1,530	10,000	5,191	28,706	3.365,340	1.005,534
167+0,000	0,200	1,860	10,000	5,319	33,890	3.370,659	1.039,424
168+0,000	0,278	1,480	10,000	4,778	33,395	3.375,436	1.072,819
169+0,000	0,719	0,180	10,000	9,963	16,597	3.385,399	1.089,416
170+0,000	0,749	0,000	10,000	14,677	1,797	3.400,076	1.091,213
171+0,000	0,981	0,000	10,000	17,306	0,000	3.417,382	1.091,213
172+0,000	1,478	0,078	10,000	24,590	0,775	3.441,972	1.091,989
173+0,000	1,070	0,186	10,000	25,472	2,631	3.467,444	1.094,619
173+16,138	0,881	0,059	8,069	15,740	1,973	3.483,184	1.096,592
174+0,000	0,658	0,269	1,931	2,972	0,634	3.486,156	1.097,226
175+0,000	0,910	0,528	10,000	15,686	7,978	3.501,843	1.105,204
176+0,000	3,089	0,048	10,000	39,997	5,763	3.541,839	1.110,968
177+0,000	2,916	0,016	10,000	60,057	0,639	3.601,896	1.111,606
178+0,000	0,273	0,623	10,000	31,897	6,392	3.633,793	1.117,998
179+0,000	0,027	1,588	10,000	3,004	22,115	3.636,798	1.140,113
180+0,000	0,001	2,469	10,000	0,280	40,575	3.637,077	1.180,689
180+1,334	0,004	2,363	0,667	0,003	3,225	3.637,081	1.183,914
181+0,000	0,111	1,959	9,333	1,072	40,340	3.638,153	1.224,254
182+0,000	0,579	0,661	10,000	6,899	26,209	3.645,052	1.250,463
183+0,000	0,484	0,549	10,000	10,633	12,106	3.655,685	1.262,568
184+0,000	0,274	0,666	10,000	7,577	12,154	3.663,262	1.274,723
185+0,000	0,290	0,346	10,000	5,634	10,119	3.668,896	1.284,841
186+0,000	0,881	0,134	10,000	11,708	4,795	3.680,604	1.289,636

VOLOS ENGENHARIA		PROJETO EXECUTIVO DE TERRAPLENAGEM				REVISÃO: 4	
		AV. SEBASTIÃO DE PÁDUA				PÁG. 7 de 10	
		PLANILHA DE CÁLCULO DE VOLUME				MAR/2025	
ESTACA	ÁREAS GEOMÉTRICAS (m²)		SEMI-DISTÂNCIA	VOLUMES PARCIAIS (m³)		VOLUMES ACUMULADOS (m³)	
	CORTE	ATERRO		CORTE	ATERRO	CORTE	ATERRO
186+6,531	1,141	0,116	3,266	6,603	0,818	3.687,208	1.290,453
187+0,000	1,469	0,042	6,734	17,577	1,065	3.704,785	1.291,518
188+0,000	0,771	0,026	10,000	22,399	0,676	3.727,184	1.292,194
189+0,000	0,000	1,147	10,000	7,709	11,725	3.734,894	1.303,919
190+0,000	0,000	1,508	10,000	0,000	26,546	3.734,894	1.330,465
191+0,000	0,002	0,721	10,000	0,015	22,291	3.734,909	1.352,757
192+0,000	0,501	0,262	10,000	5,026	9,828	3.739,935	1.362,584
193+0,000	0,454	0,296	10,000	9,548	5,575	3.749,483	1.368,159
194+0,000	0,670	0,400	10,000	11,242	6,963	3.760,725	1.375,122
194+9,407	0,736	0,395	4,704	6,616	3,743	3.767,340	1.378,865
195+0,000	0,865	0,410	5,296	8,478	4,263	3.775,818	1.383,127
196+0,000	0,997	0,740	10,000	18,613	11,500	3.794,431	1.394,627
197+0,000	0,951	1,629	10,000	19,473	23,696	3.813,904	1.418,323
198+0,000	0,963	1,698	10,000	19,139	33,272	3.833,043	1.451,594
198+19,218	0,886	1,806	9,609	17,768	33,666	3.850,810	1.485,261
199+0,000	0,889	1,829	0,391	0,693	1,420	3.851,504	1.486,681
200+0,000	0,872	1,638	10,000	17,604	34,666	3.869,108	1.521,347
201+0,000	0,883	1,399	10,000	17,545	30,365	3.886,653	1.551,711
202+0,000	0,868	1,038	10,000	17,512	24,364	3.904,165	1.576,076
203+0,000	0,705	0,823	10,000	15,729	18,613	3.919,894	1.594,689
203+9,029	1,102	0,807	4,515	8,157	7,360	3.928,051	1.602,048
204+0,000	1,396	0,921	5,485	13,705	9,478	3.941,756	1.611,526
205+0,000	0,279	1,574	10,000	16,751	24,947	3.958,507	1.636,473
206+0,000	0,000	1,938	10,000	2,789	35,112	3.961,296	1.671,584
207+0,000	0,000	1,807	10,000	0,000	37,444	3.961,296	1.709,029
208+0,000	0,000	2,285	10,000	0,000	40,920	3.961,296	1.749,949
209+0,000	0,000	1,558	10,000	0,000	38,433	3.961,296	1.788,382
210+0,000	0,000	0,941	10,000	0,000	24,987	3.961,296	1.813,368
211+0,000	0,442	0,459	10,000	4,419	13,997	3.965,715	1.827,366
212+0,000	0,051	0,600	10,000	4,928	10,593	3.970,643	1.837,959
212+10,074	0,203	0,306	5,037	1,278	4,563	3.971,921	1.842,522
213+0,000	0,446	0,207	4,963	3,222	2,541	3.975,144	1.845,063
214+0,000	0,428	0,479	10,000	8,741	6,855	3.983,885	1.851,918
215+0,000	0,992	0,082	10,000	14,201	5,607	3.998,086	1.857,525
215+14,292	1,233	0,000	7,146	15,903	0,584	4.013,989	1.858,109
216+0,000	1,236	0,000	2,854	7,045	0,000	4.021,034	1.858,109
217+0,000	1,124	0,036	10,000	23,593	0,364	4.044,627	1.858,473
218+0,000	0,811	0,020	10,000	19,343	0,563	4.063,969	1.859,036

VOLOS ENGENHARIA		PROJETO EXECUTIVO DE TERRAPLENAGEM					REVISÃO: 4
		AV. SEBASTIÃO DE PÁDUA					PÁG. 8 de 10
		PLANILHA DE CÁLCULO DE VOLUME					MAR/2025
ESTACA	ÁREAS GEOMÉTRICAS (m²)		SEMI-DISTÂNCIA	VOLUMES PARCIAIS (m³)		VOLUMES ACUMULADOS (m³)	
	CORTE	ATERRO		CORTE	ATERRO	CORTE	ATERRO
218+18,510	0,555	0,141	9,255	12,637	1,488	4.076,607	1.860,524
219+0,000	0,471	0,178	0,745	0,764	0,237	4.077,371	1.860,761
220+0,000	0,000	0,883	10,000	4,712	10,610	4.082,083	1.871,371
221+0,000	0,000	1,421	10,000	0,000	23,043	4.082,083	1.894,414
222+0,000	0,025	0,569	10,000	0,252	19,901	4.082,335	1.914,315
222+12,265	0,159	0,357	6,133	1,130	5,679	4.083,465	1.919,994
223+0,000	0,257	0,418	3,867	1,608	2,999	4.085,073	1.922,993
224+0,000	0,425	0,405	10,000	6,813	8,228	4.091,886	1.931,221
225+0,000	0,529	0,319	10,000	9,537	7,235	4.101,423	1.938,457
226+0,000	0,286	0,286	10,000	8,155	6,051	4.109,578	1.944,508
226+18,385	0,798	0,385	9,193	9,971	6,168	4.119,549	1.950,676
227+0,000	0,806	0,389	0,807	1,294	0,625	4.120,844	1.951,300
228+0,000	0,774	0,342	10,000	15,803	7,308	4.136,646	1.958,608
229+0,000	1,039	0,232	10,000	18,135	5,732	4.154,781	1.964,340
230+0,000	1,373	0,119	10,000	24,121	3,504	4.178,902	1.967,844
231+0,000	1,163	0,202	10,000	25,364	3,206	4.204,266	1.971,050
231+4,506	0,922	0,236	2,253	4,700	0,986	4.208,965	1.972,036
232+0,000	0,720	0,175	7,747	12,723	3,183	4.221,688	1.975,220
233+0,000	0,484	0,298	10,000	12,038	4,733	4.233,727	1.979,953
234+0,000	0,177	0,611	10,000	6,606	9,094	4.240,333	1.989,047
235+0,000	0,082	0,718	10,000	2,593	13,292	4.242,926	2.002,340
236+0,000	0,037	0,800	10,000	1,189	15,175	4.244,115	2.017,515
237+0,000	0,026	1,180	10,000	0,622	19,794	4.244,737	2.037,309
238+0,000	0,115	0,789	10,000	1,403	19,687	4.246,140	2.056,996
239+0,000	0,162	0,342	10,000	2,761	11,305	4.248,901	2.068,300
240+0,000	0,391	0,000	10,000	5,526	3,415	4.254,426	2.071,716
241+0,000	0,451	0,003	10,000	8,423	0,028	4.262,850	2.071,744
242+0,000	0,377	0,000	10,000	8,279	0,028	4.271,129	2.071,772
243+0,000	0,580	0,000	10,000	9,564	0,000	4.280,692	2.071,772
244+0,000	0,520	0,000	10,000	10,995	0,000	4.291,688	2.071,772
245+0,000	1,016	0,000	10,000	15,356	0,000	4.307,043	2.071,772
246+0,000	0,689	0,000	10,000	17,045	0,000	4.324,089	2.071,772
247+0,000	0,632	0,186	10,000	13,206	1,858	4.337,295	2.073,630
248+0,000	0,528	0,042	10,000	11,600	2,277	4.348,895	2.075,906
249+0,000	0,321	0,152	10,000	8,494	1,941	4.357,389	2.077,847
250+0,000	0,227	0,279	10,000	5,482	4,315	4.362,871	2.082,163
250+17,647	0,256	0,171	8,824	4,258	3,976	4.367,128	2.086,139
251+0,000	0,238	0,162	1,176	0,580	0,392	4.367,709	2.086,530



[illegible]

